

HT-1XS Hot Tack Tester

Meets ASTM F-1921-98

mocon[®]



Designed for Evolving Heat Seal Applications

Heat seal applications are constantly evolving to meet the challenge of higher specification materials and faster production methods.

Food manufacturers, film converters, film producers and resin manufacturers are constantly striving to shorten cycle rates on packaging lines and recognize that optimizing the heat sealing process is one way of accomplishing this, and ensuring a higher degree of seal integrity.

The number of heat seal applications is extensive, polypropylene and cello films, co-extrusions, thermoformed cups/trays and blisters, together with non-wovens are only a few of the materials that are bonded with heat, and as the number grows and new materials emerge in response to environmental demands, so does the need for an accurate, reproducible method of measuring heat sealing capabilities and performance.

Determination of hot tack performance requires a test method that provides repeatable results, free of operator interference. The falling weight principle, or the spring tests are difficult to regulate and are best suited for rough pass/fail evaluations. Neither method promises quantitative data. The results are either peel or no peel and are inappropriate for the strict demands of true quality control, research and development.

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HT-1XS Hot Tack Tester

The Hot Tack Tester provides an accurate, repeatable and consistent method of testing the sealing properties of a wide range of materials.

Precise control of temperature, pressure and dwell time is governed by the laboratory heat sealer. Controls within the Hot Tack Tester unit automatically pull the sample away from the heated jaws. The force required to separate the seal is then measured by a sensitive and accurate load cell.

The loading of sample strips is easy with a small pneumatic clamp at each end of the mechanism. Both clamps are designed to prevent slipping or premature release. The resulting hot tack force can be presented in either grams or newtons by customizing the software.

The computer interface and the specifically designed software enables the data to be captured and graphically displayed, along with test criteria for each batch of material, the package produces a powerful recording system. Data can be sent to a printer for output or stored on a hard drive. Data can be exported.

Cold peel testing can be performed on the same instrument, thereby making it possible to study both the hot tack and cold peel performance of seals and to obtain information about package performance both under production conditions and use.

The hot tack tester will also perform a falling weight test for hot tack comparisons making it a versatile heat seal performance test apparatus.

Specifications:

Sealing Jaws:	25 x 50 mm (1" x 2") flat ground heated top/silicone rubber lower. 25 x 50 mm (1" x 2") flat ground heated top/lower (optional). 25 x 50 mm (1" x 2") profiled crimp heated top/lower (optional).
Sample Strip:	25 mm wide x 350 mm long (1" x 14")
Load Range:	0-2000 grams, nominal (as standard) 2.2 lbs. 0-5000 grams, maximum range (optional).
Pull Speed:	Variable 50mm/second - 800mm/second
Sample Movement:	350mm(14")
Accurate Repeatability:	0.025% full scale
Communication:	RS 232
Sample Rate:	500 Hz
Software:	PC based running under Windows® 95/98 or 2000, operating system. All screen displays are mouse driven and fully interactive incorporating all the familiar features of Windows software.
Pressure Supply:	Min 6 Bar (87 PSI), Max 7 Bar (100 PSI) compressed air clean and dry
Size:	30" W x 16" D x 18" H
Weight:	88 lbs (40 kg)